

# 5

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gill, et al. Examiner: Unknown  
Serial No.: 09/745687 Group Art Unit: 1645  
Filed: December 22, 2000 Docket No.: 7500.355US01  
Title: IMPROVEMENTS IN RELATING TO IDENTIFICATION

CERTIFICATE UNDER 37 CFR 1.10

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I hereby certify that this paper or fee is being deposited with the United States Postal Service 'Express Mail Post Office To Addressee' service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner of Patents and Trademarks, Washington, D.C. 20231

By:

Yolanda Gray

SUBMISSION OF FORMAL DRAWINGS

BOX MISSING PARTS  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Submitted herewith are eleven (11) sheet(s) of Formal Drawings for completion of this application, and in compliance with the requirements of the Notification of Missing Parts dated February 7, 2001.

Respectfully submitted,

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Dated: April 9, 2001

By:

John J. Gresens  
Reg. No. 33,112

JJG/rw



23552

PATENT TRADEMARK OFFICE

**Fig. 1**

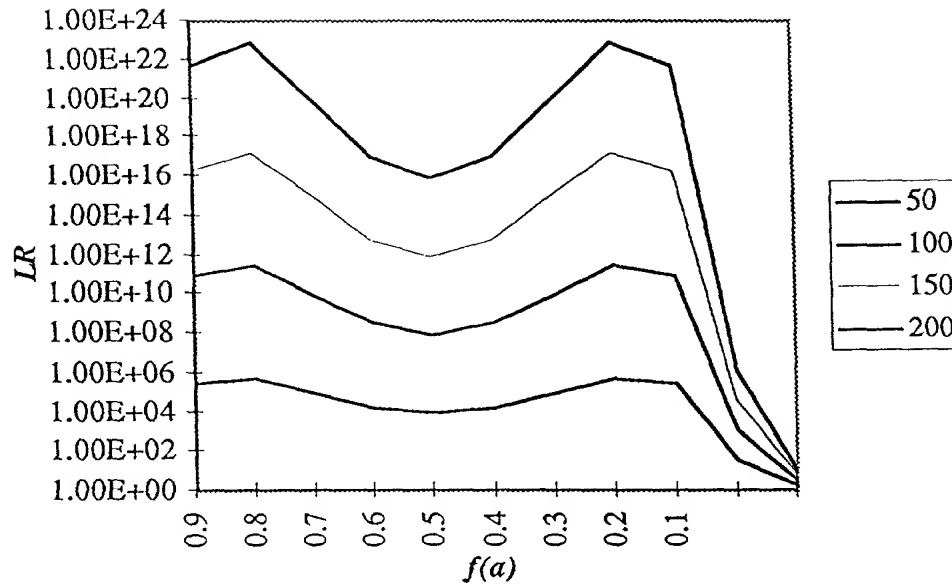
Mixture type (U,S)	AA,AA	AA,AB	AB,AA
Frequency of observations (fm)	$fa^4$	$2fa^3fb$	$2fa^3fb$
LR (numerator)	1	$(fa+fb)^2$	$fb^2+2fafb$
LR (denominator)	$fa^2$	$6fa^2fb^2+4fa^3fb+4fafb^3$	$6fa^2fb^2+4fa^3fb+4fafb^3$

Mixture type (U,S)	AA,BB	BB,AA	AB,AB
Frequency of observations (fm)	$fa^2fb^2$	$fa^2fb^2$	$4fa^2fb^2$
LR (numerator)	$fa^2+2fafb$	$fb^2+2fafb$	$(fa+fb)^3$
LR (denominator)	$6fa^2fb^2+4fa^3fb+4fafb^3$	$6fa^2fb^2+4fa^3fb+4fafb^3$	$6fa^2fb^2+4fa^3fb+4fafb^3$

Mixture type (U,S)	AB,BB	BB,AB	BB,BB
Frequency of observations (fm)	$2fafb^3$	$2fafb^3$	$fb^4$
LR (numerator)	$fa^2+2fafb$	$(fa+fb)^2$	1
LR (denominator)	$6fa^2fb^2+4fa^3fb+4fafb^3$	$6fa^2fb^2+4fa^3fb+4fafb^3$	$fb^2$

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**Fig. 2**



**Fig. 3**

Mixture type (V,S)	AA,AA	AA,AB	AB,AA
Frequency (fm)	$fa^4$	$f2a^3b$	$2a^3b$
LR (denominator)	$fa^2$	$2ab+b^2$	$(a+b)^2$

Mixture type (V,S)	AA,BB	BB,AA	AB,AB
Frequency (fm)	$fa^2 b^2$	$fa^2 fb^2$	$4fa^2b^2$
LR (denominator)	$fb^2+2fafb$	$fa^2+2fafb$	$(fa+fb)^2$

Mixture type (V,S)	AB,BB	BB,AB	BB,BB
Frequency (fm)	$2fafb^3$	$2fafb^3$	$fb^4$
LR (denominator)	$(fa+fb)^2$	$fa^2+2fafb$	$fb^2$

FIG. 3

**Fig. 4**

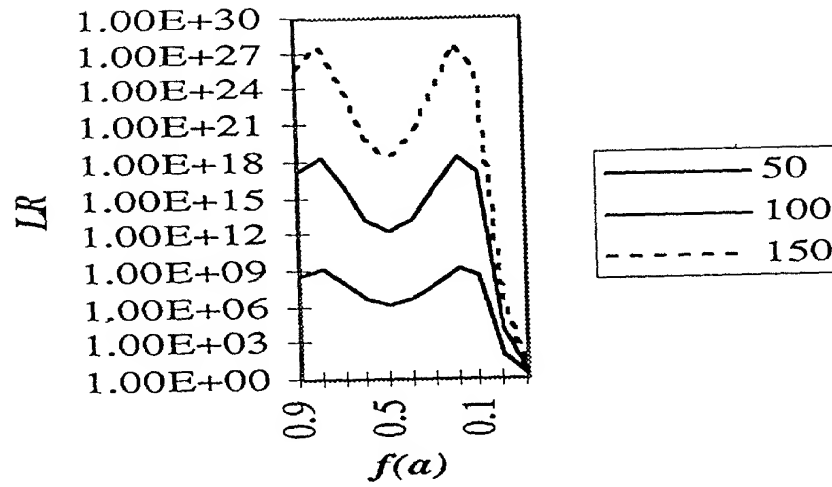
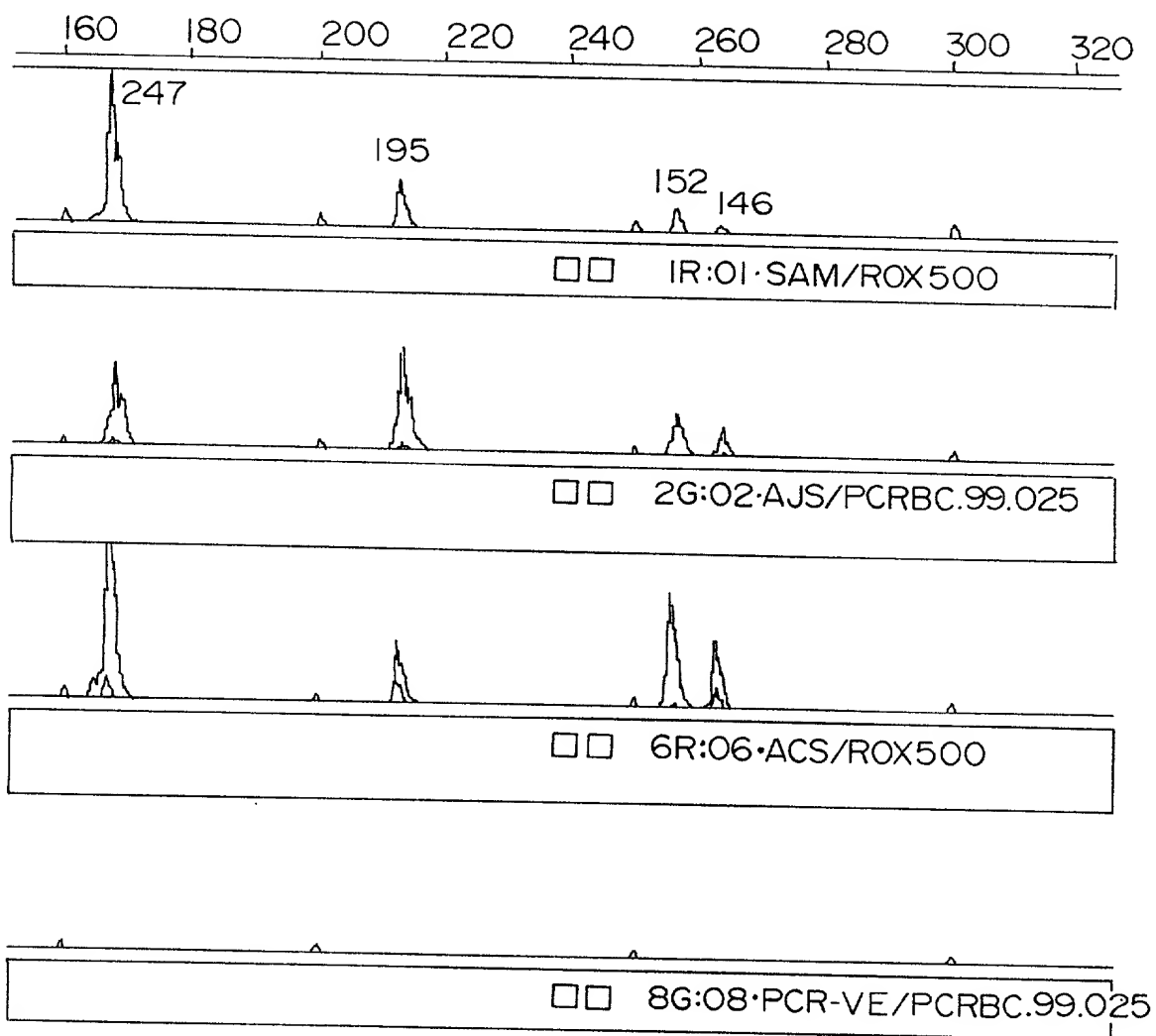


FIG. 4

Fig. 5

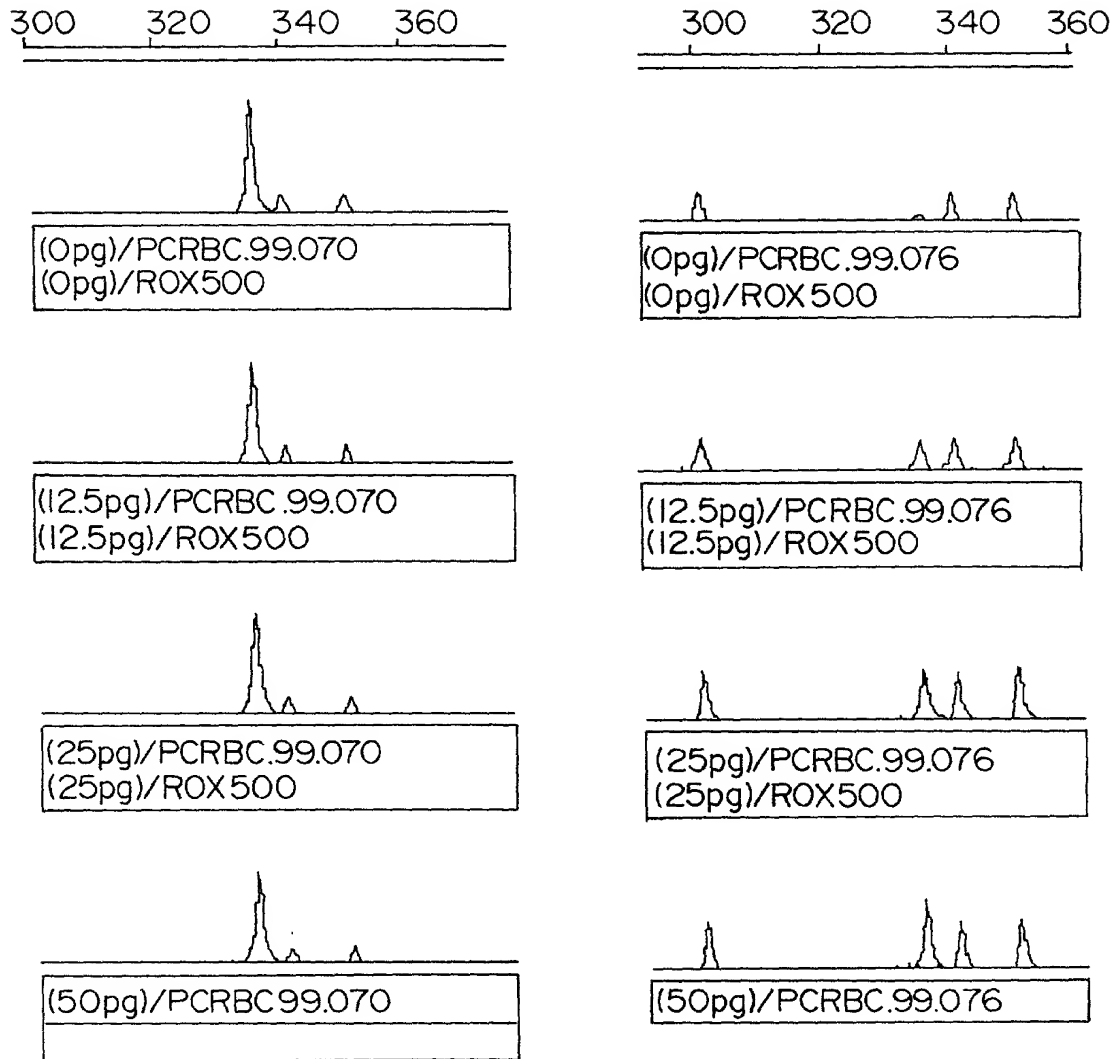
Locus	Victim	Suspect	Difference	Result	Perpetrator	Is Likelihood ratio
1	AA	AB	B	B	AB or BB	$2AB+B^2$
2	AB	AA	X	X	AA or AB or BB	1
3	BB	AB	A	A	AA or AB	$2AB+B^2$
4	AB	BB	X	X	AA or AB or BB	1
5	AA	AB	B	B	AB or BB	$2AB+B^2$
6	BB	BB	A	X	BB	$B^2$
7	AA	BB	B	B	AB or BB	$A^2+2AB$

*Fig. 6*



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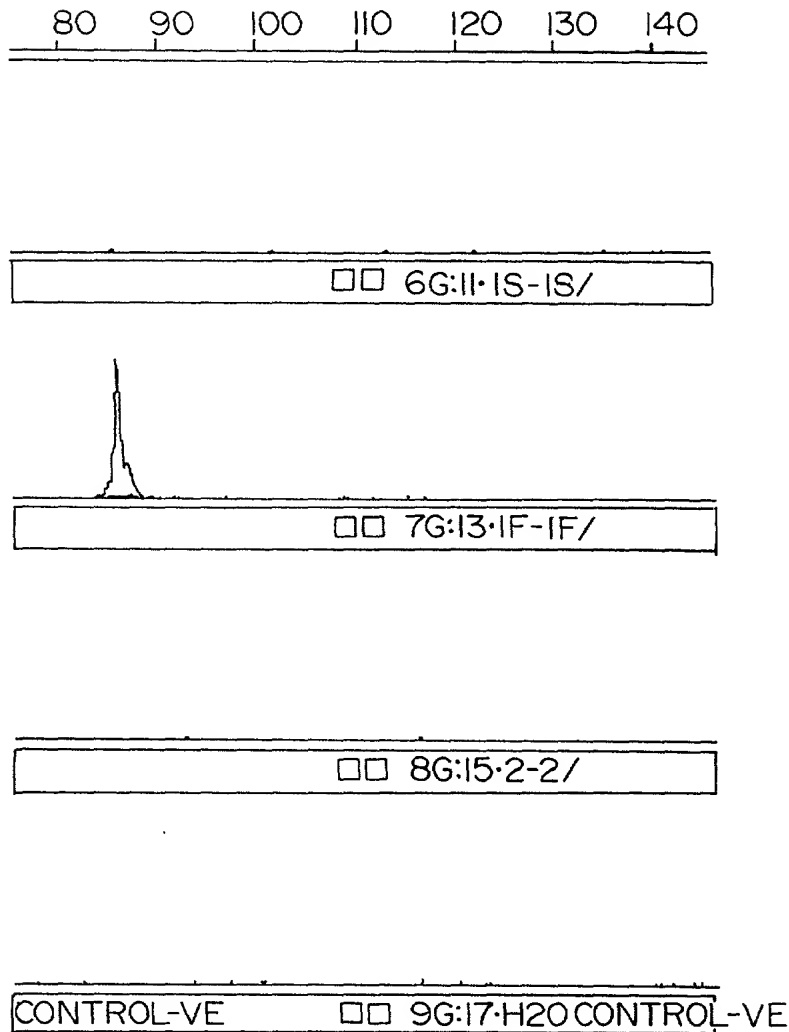
**Fig. 7**



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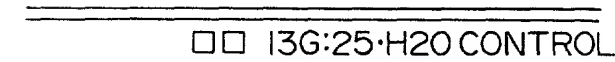
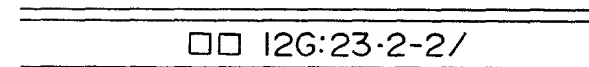
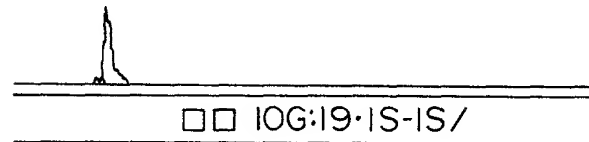
*Fig. 8*



09/745687 28954260

*Fig. 9*

100 110 120 130 140



106.19 116.21 126.23 136.25

*Fig. 10*

100 110 120 130 140

□□ 14G:27-IS-IS/

□□ 15G:29-IF-IF/

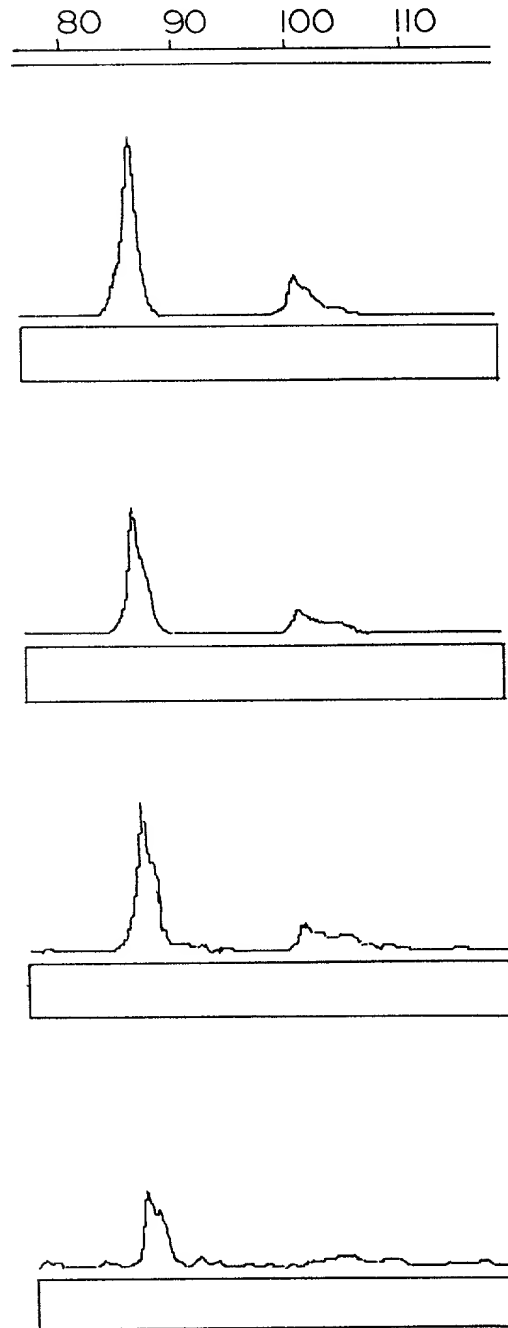


□□ 16G:31-2-2/

□□ 17G:83-H2O CONTROL-VE/

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*Fig. 11*



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